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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,988

04/19/2004

Ken Shiozaki

USUI-13W

3495

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274 MADISON AVENUE  
NEW YORK, NY 10016

EXAMINER

BERTHEAUD, PETER JOHN

ART UNIT

PAPER NUMBER

3746

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11/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/826,988	<b>Applicant(s)</b> SHIOZAKI ET AL.	
	<b>Examiner</b> PETER J. BERTHEAUD	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office action is in response to amendments filed 10/2/2008. It should be noted that claims 1 and 3 have been amended.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin 4,556,138 in view of Shiozaki 6,550,596 (Pub. 6/10/2002 US 2002/0003075).

Martin discloses a control method of an external control system fan clutch wherein the interior of a sealing housing 2, 2' supported through a bearing on a rotating shaft 4,17 body fixedly attaching a drive disk 6 to itself and a cover attached to this case is partitioned by a partition plate 8 into an oil reservoir chamber 9 and a torque transmission chamber 7 for internally mounting said drive disk 6 by a partition plate 8; and a valve member 11 comprising a spring material and having a magnetic property and being arranged within the oil reservoir chamber 9 for closing an oil circulating flow passage 10 formed in the partition plate 8 between the torque transmission chamber 7 and the oil reservoir chamber 9; an electromagnet 20 is supported by said rotating shaft body through the bearing on the oil reservoir chamber 9 side of said sealing housing 2, 2', and a mechanism for controlling the opening and closing of the oil circulating flow

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passage 10, the method comprising: biasing the valve member 11 against the partition plate 8 for keeping the oil circulating flow passage in a normally closed condition while keeping the valve member 11 substantially free of magnetic forces acting thereon (see col. 2, lines 31-33); detecting a temperature of cooling liquid of a radiator, and potentially other parameters (see col. 2, lines 61-68), for determining a desired rotational speed of the sealing housing 2, 2'; selectively operating the electromagnet 20 in response to signals indicating a need for an increased rotational speed of the sealing housing for attracting the valve member 11 and deflecting the valve member away from the partition plate 8 for opening the oil circulating flow passage 10 to permit a flow of oil into a torque transmission clearance between the drive disk 6 and the sealing housing 2, 2' to increase an effective contact area of the oil in the torque transmission clearance (see col. 3, lines 12-18); and selectively turning off the electromagnet 20 in response to signals indicative of a requirement for a slower rotational speed of the sealing housing so that the valve member 11 is substantially free of magnetic forces and is biased into the normally closed condition by the spring material (see col. 3, lines 18-21) for controlling rotating torque transmission from a drive side to a driven side by increasing and decreasing an effective contact area of the oil in the torque transmission clearance. Martin further teaches magnetic materials 21 arranged between said electromagnet 20 and the valve member 11, and is constructed by assembling the magnetic material into the sealing housing 2, 2' so as to transmit a magnetic flux of the electromagnet to the valve member through the magnetic material (see col. 3, lines 1-12). In addition, Martin teaches the claimed invention except for the magnetic material arranged between said

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electromagnet and the valve member being a ring shape. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the magnetic material of Martin (21) made into the ring shape of a ring, because Applicant has not disclosed that this arrangement, provides an advantage, is used for a particular purpose, or solves a stated problem. It has been held that mere rearrangement of the essential working parts of a device involves only routine skill in the art. In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (see MPEP 2144.04, VI. C. - Rearrangement of Parts). However, Martin does not teach the following claimed limitations taught by Shiozaki.

Shiozaki teaches a control method of an external control system fan clutch wherein the interior of a sealing housing 2 constructed by a case of a non-magnetic material supported through a bearing 13 on a rotating shaft body 1 fixedly attaching a drive disk 3 to its tip and a cover 2-2 attached to this case is partitioned by a partition plate 4 into an oil reservoir chamber 5 and a torque transmission chamber 6 for internally mounting said drive disk 3 by a partition plate 4; a dam 15 is arranged in one portion of the inner circumferential wall face of the cover opposed to the outer circumferential wall portion of the drive disk 3 for collecting and reservoiring oil at the rotating time, and a valve member 9 comprising a spring material and having a magnetic property and being arranged within the oil reservoir chamber, for closing an oil circulating flow passage formed in the partition plate 4 between the torque transmission chamber 6 and the oil reservoir chamber 5 is connected to the dam 15 and is arranged within the oil reservoir chamber 5; an electromagnet 11 is supported by said rotating

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shaft body 1 through the bearing 14 on the oil reservoir chamber 5 side of said sealing housing, and a mechanism for controlling the opening and closing of the oil circulating flow passage, the method comprising: biasing the valve member 9 against the partition plate 4 for keeping the oil circulating flow passage in a normally closed condition; selectively operating the electromagnet 11; and controlling rotating torque transmission from a drive side to a driven side by increasing and decreasing an effective contact area of the oil in a torque transmission clearance portion formed by the drive side and the driven side (see col. 2, lines 16-27); wherein the opening and closing of said valve member could be controlled on the basis of a plurality of signals selected from the cooling liquid temperature of a radiator, a fan rotating speed, the temperature of transmission oil, a vehicle speed, an engine rotating speed, the pressure of a compressor of an air conditioner, and a turning-on or turning-off signal of the air conditioner (see col. 1, lines 6-11, and 47-53). Although not explicitly stated, it is obvious that the apparatus of Shiozaki is capable of performing a method wherein an upper limit rotating speed is set to an optimum fan rotating speed required from the engine side (see col. 10, lines 14-23); a fan rotating speed control signal is temporarily stopped on the basis of the differential speeds between an engine rotating speed, the fan rotating speed and said optimum fan rotating speed; the fan rotating speed control signal is temporarily stopped on the basis of an engine rotating acceleration or an accelerator (throttle) position acceleration; or a limit is given to a changing rate of the optimum fan rotating speed on the basis of the changing rate of said optimum fan rotating speed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the device of Martin by detecting and using multiple parameters in order to determine a desired rotational speed as well as by implementing a method where an upper limit rotating speed is set to an optimum fan rotating speed, as taught by Shiozaki, thereby allowing the fan to cool the engine more efficiently and effectively.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER J. BERTHEAUD whose telephone number is (571)272-3476. The examiner can normally be reached on M-F 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/  
Primary Examiner, Art Unit 3746

PJB  
/Peter J Bertheaud/  
Examiner, Art Unit 3746